Material Safety Data Sheet (MSDS)

Summary
Material Safety Data Sheet (MSDS)

Product: MASTAZYME AI ELISA

Art.-No.: various

Basic UDI-DI: various

UDI-DI: various

Hersteller
Mast Diagnostica GmbH
Feldstraße 20
23858 Reinfeld
Deutschland
Tel. +49 (0) 4533 2007 0
Fax. +49 (0) 4533 2007 68
mast@mast-diagnostica.de

Product components

The following components are part of the kit:

Component	Describtion	Page
MASTAZYME AI ELISA controls	1.5 mL stabilized human plasma	3-18
MASTAZYME Cardiolipin controls	1.5 mL stabilized human plasma	19-34
MASTAZYME dsDNA controls	1.5 mL stabilized human plasma	35-49
MASTAZYME AI diluent	60 mL sample diluent	50-65
MASTAZYME Cardiolipin diluent	60 mL sample diluent	66-81
MASTAZYME AI ELISA conjugate	12 mL HRP-labelled goat anti-human-IgG	82-95
MASTAZYME Cardiolipin conjugate	12 mL HRP-labelled goat anti-human-IgG	96-109
MASTAYME TMB-substrate autoimmune	12 mL 3,3‘, 5,5‘ Tetramethylbenzidin	110-125
MASTAZYME stop solution 0.25 M	12 mL 0.25 M H_2SO_4 (sulfuric acid)	126-139
MASTAZYME wash buffer	50 mL washing buffer	140-153

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME AI-ELISA controls

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients
sodium azide 0 - <=0,09 %
CAS 26628-22-8
EC 247-852-1
INDEX 011-004-00-7
Acute Tox. 2, H300 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) >=0,03 - <=0,05 %
CAS 55965-84-9
INDEX 613-167-00-5
Acute Tox. 2, H330 / Acute Tox. 2, H310 / Acute Tox. 3, H301 / Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special First Aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
none

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water
Sand
Carbon dioxide (CO_2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
none

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	LTV	STV	remark
26628-22-8	Sodium azide	0,1 mg/m³	0,3 (1) mg/m³	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ European Union

LTV = long-term occupational exposure limit value
STV = short-term occupational exposure limit value
source: GESTIS International Limit Values (http://limitvalue.ifa.dguv.de/)
Monitoring and observation processes: GESTIS Analytical Methods (http://amcaw.ifa.dguv.de/)

Exposure limits at intended use

biological limit values

remark
No data available

DNEL-/PNEC-values

DNEL Consumer

Substance name sodium azide

type
systemic

source
TRGS900
Value 0,493 mg/m³
Substance name reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
type
local
source
Deutschland. MAK- und BAT Anhang IIa
Value 0,02 mg/m³

PNEC
Value 0,35 µg/L
PNEC type
aquatic, freshwater
Value 0,015 µg/L
PNEC type
aquatic, marine water
Value 0,0167 mg/kg
PNEC type
sediment, freshwater
Value 30 µg/L
PNEC type
sewage treatment plant

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
yellow

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available

parameter	Method - source - remark
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving

not relevant

Aerosols

Justification for data waiving

Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity

ingredient sodium azide
Acute dermal toxicity 18 mg/kg
Effective dose
LD50:
Species:
Rabbit

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute dermal toxicity 2,8 mg/kg
Effective dose
LD50:
Species:
Rabbit

Acute inhalation toxicity (dust/mist)

ingredient sodium azide
Acute inhalation toxicity (dust/mist) 5,4 mg/kg
Effective dose
LC50:
Exposure time 4
Species:
Rat

Acute inhalation toxicity (vapour)

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute inhalation toxicity (vapour) 16,67 mg/L
Exposure time 4 d

Acute oral toxicity

ingredient sodium azide
Acute oral toxicity 27 mg/kg

Effective dose
LD50:

Species:
Rat

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Acute oral toxicity 862 mg/kg

Effective dose
LD50:

Species:
Rat

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to algae and cyanobacteria

ingredient sodium azide
Acute (short-term) toxicity to algae and cyanobacteria 0,348 mg/L
Effective dose
EC50
Test duration 4 d
species
Alge/Wasserpflanze

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

evaluation parameter:
none

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME Cardiolipin controls

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients
sodium azide 0 - <=0,09 %
CAS 26628-22-8
EC 247-852-1
INDEX 011-004-00-7
Acute Tox. 2, H300 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) >=0,03 - <=0,05 %
CAS 55965-84-9
INDEX 613-167-00-5
Acute Tox. 2, H330 / Acute Tox. 2, H310 / Acute Tox. 3, H301 / Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special First Aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
none

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water
Sand
Carbon dioxide (CO_2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
none

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	LTV	STV	remark
26628-22-8	Sodium azide	0,1 mg/m³	0,3 (1) mg/m³	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ European Union

LTV = long-term occupational exposure limit value
STV = short-term occupational exposure limit value
source: GESTIS International Limit Values (http://limitvalue.ifa.dguv.de/)
Monitoring and observation processes: GESTIS Analytical Methods (http://amcaw.ifa.dguv.de/)

Exposure limits at intended use

biological limit values

remark
No data available

DNEL-/PNEC-values

DNEL Consumer

Substance name sodium azide

type
systemic

source
TRGS900
Value 0,493 mg/m³
Substance name reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
type
local
source
Deutschland. MAK- und BAT Anhang IIa
Value 0,02 mg/m³

PNEC
Value 0,35 µg/L
PNEC type
aquatic, freshwater
Value 0,015 µg/L
PNEC type
aquatic, marine water
Value 0,0167 mg/kg
PNEC type
sediment, freshwater
Value 30 µg/L
PNEC type
sewage treatment plant

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
yellow

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available

parameter	Method - source - remark
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving

not relevant

Aerosols

Justification for data waiving

Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity

ingredient sodium azide
Acute dermal toxicity 18 mg/kg
Effective dose
LD50:
Species:
Rabbit

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute dermal toxicity 2,8 mg/kg
Effective dose
LD50:
Species:
Rabbit

Acute inhalation toxicity (dust/mist)

ingredient sodium azide
Acute inhalation toxicity (dust/mist) 5,4 mg/kg
Effective dose
LC50:
Exposure time 4
Species:
Rat

Acute inhalation toxicity (vapour)

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute inhalation toxicity (vapour) 16,67 mg/L
Exposure time 4 d

Acute oral toxicity

ingredient sodium azide
Acute oral toxicity 27 mg/kg

Effective dose
LD50:

Species:
Rat

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Acute oral toxicity 862 mg/kg

Effective dose
LD50:

Species:
Rat

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to algae and cyanobacteria

ingredient sodium azide
Acute (short-term) toxicity to algae and cyanobacteria 0,348 mg/L
Effective dose
EC50
Test duration 4 d
species
Alge/Wasserpflanze

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

evaluation parameter:
none

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME dsDNA controls

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards
Skin Sens. 1

hazard statements for health hazards
H317 May cause an allergic skin reaction.

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

GHS07
Signal word
Warning

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

Storage:
none

Disposal:
P501 Dispose of contents/container to an appropriate recycling or disposal facility.

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients
2-methylisothiazol-3(2H)-one <0,1 %

CAS 2682-20-4
EC 220-239-6
INDEX 613-326-00-9
Acute Tox. 2, H330 / Acute Tox. 3, H311 / Acute Tox. 3, H301 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water. In case of skin irritation, consult a physician.

After eye contact
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically. Kann bei empfindlichen Personen eine Sensibilisierung hervorrufen.

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water
Sand
Carbon dioxide (CO2)
Extinguishing powder

Unsuitable extinguishing media
Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
Use personal protection equipment.

Protective equipment
none

For emergency responders

Personal protection equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions

see chapter 12 for additional information

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits at intended use

biological limit values

remark
No data available

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
yellow

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available

parameter	Method - source - remark
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving
The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving
not relevant

Aerosols

Justification for data waiving
Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity
ingredient 2-methylisothiazol-3(2H)-one
Acute dermal toxicity 200 mg/kg

Effective dose
LD50:

Species:
Rabbit

Acute inhalation toxicity (vapour)
ingredient 2-methylisothiazol-3(2H)-one
Acute inhalation toxicity (vapour) 0,11 mg/L

Effective dose
LC50:
Exposure time 4 h

Acute oral toxicity
ingredient 2-methylisothiazol-3(2H)-one

Acute oral toxicity 120 mg/kg

Effective dose
LD50:

Species:
Rat

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

Result / evaluation
keine/keiner

Chronic (long-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to algae and cyanobacteria

Result / evaluation
none

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME Al Diluent

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients
sodium azide 0 - <=0,09 %
CAS 26628-22-8
EC 247-852-1
INDEX 011-004-00-7
Acute Tox. 2, H300 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) >=0,03 - <=0,05 %
CAS 55965-84-9
INDEX 613-167-00-5
Acute Tox. 2, H330 / Acute Tox. 2, H310 / Acute Tox. 3, H301 / Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special First Aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
none

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water
Sand
Carbon dioxide (CO_2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
none

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	LTV	STV	remark
26628-22-8	Sodium azide	0,1 mg/m³	0,3 (1) mg/m³	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ European Union

LTV = long-term occupational exposure limit value
STV = short-term occupational exposure limit value
source: GESTIS International Limit Values (http://limitvalue.ifa.dguv.de/)
Monitoring and observation processes: GESTIS Analytical Methods (http://amcaw.ifa.dguv.de/)

Exposure limits at intended use

biological limit values

remark
No data available

DNEL-/PNEC-values

DNEL Consumer

Substance name sodium azide

type
systemic

source
TRGS900
Value 0,493 mg/m³
Substance name reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
type
local
source
Deutschland. MAK- und BAT Anhang IIa
Value 0,02 mg/m³

PNEC
Value 0,35 µg/L
PNEC type
aquatic, freshwater
Value 0,015 µg/L
PNEC type
aquatic, marine water
Value 0,0167 mg/kg
PNEC type
sediment, freshwater
Value 30 µg/L
PNEC type
sewage treatment plant

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
green

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available

parameter	Method - source - remark
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving

not relevant

Aerosols

Justification for data waiving

Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity

ingredient sodium azide
Acute dermal toxicity 18 mg/kg
Effective dose
LD50:
Species:
Rabbit

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute dermal toxicity 2,8 mg/kg
Effective dose
LD50:
Species:
Rabbit

Acute inhalation toxicity (dust/mist)

ingredient sodium azide
Acute inhalation toxicity (dust/mist) 5,4 mg/kg
Effective dose
LC50:
Exposure time 4
Species:
Rat

Acute inhalation toxicity (vapour)

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute inhalation toxicity (vapour) 16,67 mg/L
Exposure time 4 d

Acute oral toxicity

ingredient sodium azide
Acute oral toxicity 27 mg/kg

Effective dose
LD50:

Species:
Rat

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Acute oral toxicity 862 mg/kg

Effective dose
LD50:

Species:
Rat

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to algae and cyanobacteria

ingredient sodium azide
Acute (short-term) toxicity to algae and cyanobacteria 0,348 mg/L
Effective dose
EC50
Test duration 4 d
species
Alge/Wasserpflanze

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

evaluation parameter:
none

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans

Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans

Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME Cardiolipin Diluent

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients

sodium azide 0 - <=0,09 %
CAS 26628-22-8
EC 247-852-1
INDEX 011-004-00-7
Acute Tox. 2, H300 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) >=0,03 - <=0,05 %
CAS 55965-84-9
INDEX 613-167-00-5
Acute Tox. 2, H330 / Acute Tox. 2, H310 / Acute Tox. 3, H301 / Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special First Aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
none

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water
Sand
Carbon dioxide (CO_2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
none

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	LTV	STV	remark
26628-22-8	Sodium azide	0,1 mg/m³	0,3 (1) mg/m³	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ European Union

LTV = long-term occupational exposure limit value
STV = short-term occupational exposure limit value
source: GESTIS International Limit Values (http://limitvalue.ifa.dguv.de/)
Monitoring and observation processes: GESTIS Analytical Methods (http://amcaw.ifa.dguv.de/)

Exposure limits at intended use

biological limit values

remark
No data available

DNEL-/PNEC-values

DNEL Consumer

Substance name sodium azide

type
systemic

source
TRGS900
Value 0,493 mg/m³
Substance name reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
type
local
source
Deutschland. MAK- und BAT Anhang IIa
Value 0,02 mg/m³

PNEC
Value 0,35 µg/L
PNEC type
aquatic, freshwater
Value 0,015 µg/L
PNEC type
aquatic, marine water
Value 0,0167 mg/kg
PNEC type
sediment, freshwater
Value 30 µg/L
PNEC type
sewage treatment plant

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
green

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available

parameter	Method - source - remark
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving

not relevant

Aerosols

Justification for data waiving

Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity

ingredient sodium azide
Acute dermal toxicity 18 mg/kg
Effective dose
LD50:
Species:
Rabbit

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute dermal toxicity 2,8 mg/kg
Effective dose
LD50:
Species:
Rabbit

Acute inhalation toxicity (dust/mist)

ingredient sodium azide
Acute inhalation toxicity (dust/mist) 5,4 mg/kg
Effective dose
LC50:
Exposure time 4
Species:
Rat

Acute inhalation toxicity (vapour)

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute inhalation toxicity (vapour) 16,67 mg/L
Exposure time 4 d

Acute oral toxicity

ingredient sodium azide
Acute oral toxicity 27 mg/kg

Effective dose
LD50:

Species:
Rat

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Acute oral toxicity 862 mg/kg

Effective dose
LD50:

Species:
Rat

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to algae and cyanobacteria

ingredient sodium azide
Acute (short-term) toxicity to algae and cyanobacteria 0,348 mg/L
Effective dose
EC50
Test duration 4 d
species
Alge/Wasserpflanze

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

evaluation parameter:
none

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME AI-ELISA conjugate

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) >=0,05 - <=0,08 %

CAS 55965-84-9

INDEX 613-167-00-5

Acute Tox. 2, H330 / Acute Tox. 2, H310 / Acute Tox. 3, H301 / Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special First Aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
none

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water

Sand
Carbon dioxide (CO2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
none

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits at intended use

biological limit values

remark
No data available

DNEL-/PNEC-values

DNEL Consumer

Substance name reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

type
local

source
Deutschland. MAK- und BAT Anhang IIa

Value 0,02 mg/m³

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
red

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available

parameter	Method - source - remark
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving
not relevant

Aerosols

Justification for data waiving
Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute dermal toxicity 2,8 mg/kg

Effective dose
LD50:

Species:
Rabbit

Acute inhalation toxicity (vapour)

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute inhalation toxicity (vapour) 16,67 mg/L
Exposure time 4 d

Acute oral toxicity

ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute oral toxicity 862 mg/kg

Effective dose
LD50:

Species:
Rat

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

evaluation parameter:
none

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No
Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME Cardiolipin conjugate

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) >=0,05 - <=0,08 %

CAS 55965-84-9

INDEX 613-167-00-5

Acute Tox. 2, H330 / Acute Tox. 2, H310 / Acute Tox. 3, H301 / Skin Corr. 1C, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special First Aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
none

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water

Sand
Carbon dioxide (CO2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents..

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
none

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Lagerung ist unter der auf den Etikett aufgeführten Bedingungen zu erfolgen. Zusätzliche Informationen zur Lagerung sind in den Gebrauchsinformationen aufgeführt.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits at intended use

biological limit values

remark
No data available

DNEL-/PNEC-values

DNEL Consumer

Substance name reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

type
local

source
Deutschland. MAK- und BAT Anhang IIa

Value 0,02 mg/m³

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
red

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available

parameter	Method - source - remark
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving
not relevant

Aerosols

Justification for data waiving
Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity
ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute dermal toxicity 2,8 mg/kg

Effective dose
LD50:

Species:
Rabbit

Acute inhalation toxicity (vapour)
ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute inhalation toxicity (vapour) 16,67 mg/L
Exposure time 4 d

Acute oral toxicity
ingredient reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
Acute oral toxicity 862 mg/kg

Effective dose
LD50:

Species:
Rat

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

evaluation parameter:
none

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No
Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME autoimmune substrate TMB

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Description
Das Gemisch enthält keine gefährlichen Inhaltsstoffe (gemäß Verdordnung (EG) Nr. 1907/2006 (REACH)).

Hazardous ingredients
2-Pyrrolidon 1 - <3 %

CAS 210-483-1
REACHNo 01-2119475471-37
Repr. 1B, H360 / Eye Irrit. 2, H319

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special First Aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water.

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
No data available

Symptoms
No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO_2)

Foam
Dry extinguishing powder

Unsuitable extinguishing media
Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
Carbon monoxide
Carbon dioxide (CO2)

5.3 Advice for firefighters
No data available

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
Persöhnliche Schutzausrüstung verwenden.

For emergency responders

Personal protection equipment
Vorgeschriebene persöhnliche Schutzausrüstung verwenden.

6.2 Environmental precautions
Dilute with water.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Storage class according to TRGS 510: 10 (Flammable liquids that cannot be assigned to any of the aforementioned LGK)

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits at intended use

biological limit values

remark
No data available

Occupational exposure limit values
Substance name Butan-1,4-diol
CAS No. 110-63-4
long-term occupational exposure limit value 50 ppm
source
TRGS 900
Substance name Dimethylsulfoxid (DMSO)
CAS No. 67-68-5
long-term occupational exposure limit value 50 ppm
source
TRGS 900
Substance name Zitronensäure
CAS No. 77-92-9
long-term occupational exposure limit value 2 mg/m³
source
TRGS 900

DNEL-/PNEC-values

DMEL worker
Substance name 2-Pyrrolidon
type
Long-term – inhalation, systemic effects
remark
29,62 mg/m³
Substance name 2-Pyrrolidon
type
Long-term - dermal, systemic effects
remark
4,2 mg/kg KG/d

PNEC

Value 0,5 mg/L

PNEC type
aquatic, freshwater
Value 0,05 mg/L

PNEC type
aquatic, marine water
Value 0,4205 mg/kg

PNEC type
sediment, freshwater
Value 10 mg/L

PNEC type
sewage treatment plant
Value 0,0612 mg/kg

PNEC type
soil

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)
Required properties:
Dicke des Handschuhmaterials >= 0.1 mm
Durchbruchszeit > 480 min

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
colourless
light yellow

Odour
charakteristisch

Odour threshold
not relevant

		parameter	Method - source - remark
Melting point/freezing point			No data available
Boiling point or initial boiling point and boiling range	100 °C		Berechnungsmethode
flammability			not relevant
Upper explosion limit			not relevant
lower explosion limit			not relevant
Flash point (°C)	120 °C		Berechneter Flammpunkt
Auto-ignition temperature			not relevant
Decomposition temperature			not relevant
pH	3,5 - 4	Temperature 20 °C	Experimentelle Daten
Kinematic viscosity			No data available
Water solubility			No data available
Soluble (g/L) in			not relevant
Fat solubility			No data available
Partition coefficient: n-octanol/water	-0,71		2-Pyrrolidon
Vapour pressure			No data available
Density and/or relative density			No data available
Relative vapour density			No data available
particle characteristics			not relevant
Dynamic viscosity			No data available
flow time			No data available

parameter	Method - source - remark
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving

not relevant

Aerosols

Justification for data waiving

Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Avoid high temperatures or direct sunlight.

10.5 Incompatible materials
Metalle
Oxidationsmittel

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity

ingredient 2-Pyrrolidon
Acute dermal toxicity >2000 mg/kg

Effective dose
LD50:

Species:
Rabbit

source
Europäische Chemikalienagentur

Acute oral toxicity

ingredient 2-Pyrrolidon
Acute oral toxicity >2000 mg/kg

Effective dose
LD50:

Species:
Rat

Method
OECD 401

source
Europäische Chemikalienagentur

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

ingredient 2-Pyrrolidon
Acute (short-term) fish toxicity 10000 mg/L
Effective dose
LC50:
Test duration 96 h
species
Danio rerio (zebrafish)
remark
Quelle: Europäische Chemikalienagentur

Acute (short-term) toxicity to crustacea

ingredient 2-Pyrrolidon
Acute (short-term) toxicity to crustacea >500 mg/L
Effective dose
EC50
Test duration 48 h
species
Daphnia magna (Big water flea)
remark
Quelle: Europäische Chemikalienagentur

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

ingredient 2-Pyrrolidon
Chronic (long-term) toxicity to aquatic algae and cyanobacteria >500 mg/L
Effective dose
ErC50
Test duration 72 h
species
Desmodesmus subspicatus
source
Europäische Chemikalienagentur

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME stopping solution 0.25 M

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients
sulphuric acid ... % <=1,4 %
CAS 7664-93-9
EC 231-639-5
INDEX 016-020-00-8
Skin Corr. 1A, H314

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Change contaminated, saturated clothing.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

Following ingestion
Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect). Do not induce vomiting.

Self-protection of the first aider
First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

If decomposition products are inhaled the following symptoms can occur
Vomiting
Headache
Gastrointestinal complaints
Sweating
Nausea

Effects
Nausea
Gastrointestinal complaints

Symptoms
Headache
Gastrointestinal complaints
Nausea

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Recovery usually happens spontaneously. Treat symptomatically.

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water
Sand
Carbon dioxide (CO_2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
Rubber boots
rubber gloves. protective clothing.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures
Provide adequate ventilation. Remove persons to safety.

Personal precautions
Use personal protection equipment.

Protective equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits at intended use

biological limit values

remark
No data available

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Unsuitable protective clothing
No data available

Required properties
No data available

Recommended material
Natural fibres (e.g. cotton)
heat-resistant synthetic fibres

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
colourless

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant

parameter	Method - source - remark
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available

	parameter	Method - source - remark
Oxidising solids		not relevant
Oxidising gas		not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving
The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving
not relevant

Aerosols

Justification for data waiving
Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

Additional information
Toxicological data are not available.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

remark
No data available

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability
No information available.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers
No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations
none

restrictions on use
none

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
See SECTION 2.1 (classification).

Indication of changes
not relevant

Additional information
not relevant

Relevant R-, H- and EUH-phrases (Number and full text)
none
H317 May cause an allergic skin reaction.
H290 May be corrosive to metals.

Training advice
none

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation MASTAZYME AI-ELISA washing buffer

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

remark
The product is intended for professional use.

Sector of uses [SU]
SU20 Health services

1.3 Details of the supplier of the safety data sheet

Manufacturer
Mast Diagnostica GmbH
Feldstraße 20
Deutschland-23858 Reinfeld
Telephone: +49 4533 20 07 00
Telefax: +49 4533 2007 68
E-mail: mast@mast-diagnostica.de
www.mast-group.com

1.4 Emergency telephone number

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Additional information
The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

hazard statements for health hazards
none

Physical hazards

hazard statements for physical hazards
none

Environmental hazards
none

Additional hazards
none

Specific concentration limit (SCL)

Hazard classes and hazard categories
none

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word
none

Hazard statements

Hazard statements for physical hazards
none

hazard statements for health hazards
none

Hazard statements for environmental hazards
none

Hazard statements for additional hazards
none

Precautionary statements

General:
none

Prevention
none

Response:
none

Storage:
none

Disposal:
none

Supplemental hazard information

Physical properties
none

health hazard properties
none

Environmental properties
none

Other labelling

Standard phrases for special risks for humans or the environment
none

Labelling for contents according to regulation (EC) No. 648/2004
none

Standard phrases for safety precautions for the protection of humans or the environment

General provisions
none

Safety precautions for operators (SPo)
none

Safety precautions related to the environment (SPe)
none

Safety precautions related to good agricultural practice (SPa)
none

Specific safety precautions for rodenticides (SPr)
none

Standard phrases for special risks for humans or the environment

Special risks related to humans (RSh):
none

Special risks related to the environment (RSe):
none

2.3 Other hazards

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse physicochemical effects
none

Other adverse effects
none

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Description
none

Hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
No special first aid measures are required.

Following skin contact
Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion
Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect).

Self-protection of the first aider
none

4.2 Most important symptoms and effects, both acute and delayed

Effects
none

Symptoms
none

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
none

Special treatment
none

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Water
Sand
Carbon dioxide (CO_2)
Extinguishing powder

Unsuitable extinguishing media
none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
none

5.3 Advice for firefighters

Special protective equipment for firefighters
No special equipment or techniques are required.

SECTION 6: Accidental release measures

Additional information
Absorb and remove liquid with absorbent material. Clean the affected surface with standard cleaning agents.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
none

Protective equipment
none

For emergency responders

Personal protection equipment
none

6.2 Environmental precautions
none

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Commercially available materials are sufficient.

For cleaning up

Suitable material for diluting or neutralizing
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling
No special technical protective measures are necessary.

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
No special technical protective measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Storage conditions are listed on the labels. Additional information concerning the storage are given in the instructions for use.

Hints on joint storage

Materials to avoid
none

Further information on storage conditions
Protect against:
UV-radiation/sunlight
Temperatures outside the listed range.

storage temperature
Value >=2 - <=8 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits at intended use

biological limit values

remark
No data available

DNEL-/PNEC-values

DNEL Consumer

type
local

source
Deutschland. MAK- und BAT Anhang IIa
Value 0,02 mg/m³

8.2 Exposure controls

Appropriate engineering controls

remark
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NBR (Nitrile rubber)

Body protection

Suitable protective clothing
lab coat

Respiratory protection
none

Environmental exposure controls

remark
See section 7. No additional measures necessary.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations).
not relevant

Measures related to the service life of the substance in articles
not relevant

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
colourless

Odour
odourless

Odour threshold
not relevant

parameter	Method - source - remark
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
flammability	not relevant
Upper explosion limit	not relevant
lower explosion limit	not relevant
Flash point (°C)	not relevant
Auto-ignition temperature	not relevant
Decomposition temperature	not relevant
pH	No data available
Kinematic viscosity	No data available
Water solubility	No data available
Soluble (g/L) in	not relevant
Fat solubility	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available

parameter	Method - source - remark
particle characteristics	not relevant
Dynamic viscosity	No data available
flow time	No data available
Thermal sensitivity	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitiveness to impact (J)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Sensitivity to friction (N)	A.14: The tests need not be performed when available thermodynamic information (e.g. heat of formation, heat of decomposition) and/ or absence of certain reactive groups in the srructural formula establishes beyond reasonable doubt that the substance is incapable of rapid decomposition with evolution of gases or release of heat (i.e. the material does not present any risk of explosion).
Oxidising liquids	No data available
Oxidising solids	not relevant
Oxidising gas	not relevant

9.2 Other information

Physical hazards

Explosives

Justification for data waiving

The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.

Flammable gases

Justification for data waiving

not relevant

Aerosols

Justification for data waiving
Testing can be waived because substance is not an aerosol.

Oxidising gas

Justification for data waiving
Testing can be waived because substance is a liquid.

Gases under pressure

Justification for data waiving
Testing can be waived because substance is a liquid.

flammable liquids

Justification for data waiving
not relevant

Flammable solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Self-reactive substances and mixtures

Justification for data waiving
The classification procedures for self-reactive substances and mixtures need not be applied because there are no chemical groups present in the molecule associated with explosive or selfreactive properties.

Pyrophoric liquids

Justification for data waiving
The study does not need to be conducted because the substance is known to be stable at room temperature for prolonged periods of time (days).

Pyrophoric solids

Justification for data waiving
Testing can be waived because substance is a liquid.

self-heating substances and mixtures

Justification for data waiving
not relevant

Substances or mixtures which, in contact with water, emit flammable gases

Justification for data waiving
not relevant

Oxidising liquids

Justification for data waiving
not relevant

Oxidising solids

Justification for data waiving
Testing can be waived because substance is a liquid.

Organic peroxides

Justification for data waiving
Classification procedure not required, because the substance or the mixture is by definition not an organic peroxide.

Corrosive to metals

Justification for data waiving
not relevant

Desensitised explosives

Justification for data waiving
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
No hazardous reaction when handled and stored according to provisions. Further information on storage conditions: see subsection 7.2.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Further information on storage conditions: see subsection 7.2.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses. No known hazardous decomposition products.

SECTION 11: Toxicological information

Additional information
Toxicological data are not available.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Human toxicological data
No data available

Non-human toxikological data

remark
There are no data available on the preparation/mixture itself.

Acute toxicity

Acute dermal toxicity

remark
none

Acute inhalation toxicity (vapour)

remark
none

Acute oral toxicity

remark
none

skin corrosion/irritation

Assessment/classification
No data available

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification
No data available

Skin sensitisation

Assessment/classification
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Human toxicological data

Result
not relevant

In vitro mutagenicity/genotoxicity

Genetic endpoint
not relevant

In vivo mutagenicity/genotoxicity

Result / evaluation
not relevant

Carcinogenicity

Result / evaluation
No data available

Reproductive toxicity

Assessment/classification
No data available

Adverse effects on sexual function and fertility

Result / evaluation
No data available

Adverse effects on developmental toxicity

Result / evaluation
No data available

Effects on or via lactation

Result
No data available

STOT-single exposure

STOT SE 1 and 2

Dermal specific target organ toxicity (single exposure)

remark
No data available

Inhalative specific target organ toxicity (single exposure)

remark
No data available

Oral specific target organ toxicity (single exposure)

remark
No data available

STOT SE 3

Irritation to respiratory tract

Assessment/classification
No data available

STOT-repeated exposure

STOT RE 1 and 2

Dermal specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Oral specific target organ toxicity (repeated exposure)

Assessment/classification
No data available

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

remark
No data available

Subacute dermal toxicity

Specific effects:
No data available

Subacute inhalation toxicity

Specific effects:
No data available

Subchronic dermal toxicity

Specific effects:
No data available

Subchronic inhalation toxicity

Specific effects:
No data available

Chronic oral toxicity

Specific effects:
No data available

Chronic dermal toxicity

Specific effects:
No data available

Chronic inhalation toxicity

Specific effects:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

remark
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Phototoxicity

In vitro phototoxicity

evaluation
No data available

In vivo phototoxicity

evaluation
No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Result / evaluation
none

Acute (short-term) toxicity to crustacea

Result / evaluation
none

Chronic (long-term) toxicity to aquatic invertebrate

remark
none

Chronic (long-term) fish toxicity

Result / evaluation
none

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

remark
No data available

Toxicity to other aquatic plants/organisms

Result / evaluation
none

Toxicity to microorganisms

Result / evaluation
none

Terrestrial toxicity

Effects on soil microorganisms

evaluation
none

Toxicity to soil macroorganisms except of arthropods

Acute earthworm toxicity

evaluation
none

Chronical earthworm toxicity (reproduction)

evaluation
none

Toxicity to terrestrial arthropods

Insect toxicity

evaluation
none

Toxicity to terrestrial plants

Acute plant toxicity

evaluation
none

Chronic plant toxicity

evaluation
none

Toxicity to birds

Acute and subchronic bird toxicity

evaluation
none

Bird reproduction toxicity

evaluation
none

Additional ecotoxicological information

General information
none

12.2 Persistence and degradability

Assessment/classification
The substance meets the criteria of ready degradability as defined in Regulation (EC) No 1272/2008.

12.3 Bioaccumulative potential

Assessment/classification
not applicable

12.4 Mobility in soil

Assessment/classification
No data available

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

remark
No data available

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code product 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

After intended use

Waste code packaging 180100
hazardous waste No

Waste name
wastes from natal care, diagnosis, treatment or prevention of disease in humans
Waste code packaging 180107
hazardous waste No

Waste name
chemicals other than those mentioned in 18 01 06

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information

All transport carriers

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

authorisations

none

restrictions on use

none

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

See SECTION 2.1 (classification).

Indication of changes

not relevant

Additional information

not relevant

Relevant R-, H- and EUH-phrases (Number and full text)

none

Training advice

none